REMARKS

Claims 1-19 have been pending in this application. All claims have been rejected. These rejections are traversed and reconsideration is requested.

Claims 17-19 have been canceled to further the prosecution of this application. The Applicants do not concede to the Examiner's arguments and reserve the right to prosecute these claims in a continuation application.

The Applicants thank the Examiner for the telephone interview conducted on May 27; 2004 by Applicants' representatives, Mr. Thibodeau and Ms. Lubashev. Independent Claims 1 and 11 have been amended in accordance with the proposed amendments discussed during the interview.

Claim Rejections Under 35 U.S.C. § 112

Claims 17-19 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 17-19 have been canceled to further the prosecution of this application. The Applicants do not concede to the Examiner's arguments and reserve the right to prosecute these claims in a continuation application.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-19 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Sherry (US 5,757,617) over Wakita (US 5,488,538). This rejection is respectfully traversed and reconsideration is requested. Claims 1 and 11 have been amended as discussed with Examiner Vu during the Examiner interview.

The present application addresses a problem of designing a sled module that can accommodate different brands of Hard Disk Drives (HDDs) without using flexible connection cables. The data and power connectors used on various brands of HDDs, while all the same type, are not all in exactly the same physical location on the back of the HDD housing. It is desirable for the data interface and power port on each HDD to mate directly with the corresponding ports on the circuit board. This would eliminate the need for a flexible cable to couple the data and power ports on the HDD device, thus reducing the size and number of parts on the sled module assembly.

According to the pending Claim 1, spacers are used to position a mass storage device within a housing such that the signal connector on the circuit board and the signal connector on the mass storage device are aligned with one another, the spacers thus permitting the sled module to mate directly without an intervening signal cable with mass storage devices having signal connectors with different positional configurations. None of the cited references teach or suggest these aspects of the invention, nor do they teach its advantages over the prior art. Moreover, the cited references do not disclose directly mating the mass storage device with the signal connectors on the circuit board without the use of a ribbon cable. Thus, it is respectfully submitted that the invention as recited in the claims includes a limitation not taught or disclosed by any of the references.

Sherry describes a chassis assembly housing a plurality of modules. Small contact area guide rails in the chassis engage each module to provide alignment (Abstract, lines 1-4). Sherry does not teach or suggest spacers at all. It merely demonstrates a housing 80, a circuit board 72 and an end connector 68. The disk 60 of Sherry does have a signal connector 62, however, Sherry does not teach or suggest that drives with different connector position configurations can be accommodated in the same module.

Wakita also shows a type of chassis for mounting a disk drive within a circuit enclosure and does show a type of spacer 20, 30. However, these spacers 20, 30 in Wakita serve an entirely different purpose than the Applicant's spacers. The problem that Wakita was faced with was to accommodate different width dimensions, that is, different disk enclosure widths and locations of mounting holes. In other words, Wakita uses the spacers to accommodate HDDs having different external frame widths, but not different end connector positions.

Providing a way for the disk drive and the circuit board connectors to mate directly retains the function of the ribbon cable (to wit: connecting the two), while eliminating the need for the cable itself. As stated in the MPEP 2144.04(II)(B), "omission of an element and retention of its function is an indicia of unobviousness." *In re Edge*, 359 F.2d 896, 149 USPQ556 (CCPA 1996). Amended Claims 1 and 11 explicitly recite the absence of the ribbon cable.

Neither Wakita nor Sherry, nor the combination of the two, teach or suggest using the spacers to position the mass storage device within the housing such that the circuit board connector and the signal connector on the mass storage device are aligned with another, thus

permitting the sled module to mate directly, without an intervening cable, with mass storage devices. Therefore, Claims 1 and 11 are not obvious in view of the combination of Sherry and Wakita and the rejection should be withdrawn.

Dependent Claim 2-10 and 12-16 depend on independent Claims 1 and 11, respectively, and therefore are not obvious in view of the combination of Sherry and Wakita for at least the same reasons as above.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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